

ABSTRACT OF THE DISCLOSURE

An ultrasonic transmitting and receiving apparatus capable of obtaining ultrasonic images with high quality and reduced effect of side lobes. The apparatus includes: an
5 ultrasonic transducer array including plural elements for transmitting and receiving ultrasonic waves; a drive signal generating unit for generating drive signals for respectively driving the plural elements; a transmission control unit for controlling the drive signal generating unit such that
10 transmitted ultrasonic waves form an ultrasonic beam transmitted in at least one direction; a reception control unit for performing reception focusing processing on plural detection signals obtained based on ultrasonic waves received by the plural elements so as to form a reception focal point
15 in at least one direction thereby forming an ultrasonic beam; and a scanning control unit for changing directivity of plural ultrasonic components constituting the ultrasonic beam according to a sound ray direction of the ultrasonic beam.